

AMENDMENTS TO THE CLAIMS

Please cancel claims 2-8, 12, 14, 15, 21-34 and 39-42, amend claims 1 and 13, and insert new claims 43-70, as follows.

1. (Currently Amended) ~~An apparatus for use in a radiation procedure~~ The apparatus of claim 43, further comprising:

a radiation filter proximate the structure, the radiation filter having a first portion and a second portion, the first and the second portions forming a layer for filtering radiation impinging thereon;

wherein the first portion is made from a first ~~material having a first~~ x-ray filtering ~~characteristic material~~, and the second portion is made from a second ~~material having a second~~ x-ray filtering ~~characteristic material~~.

2-8. (Canceled)

9. (Original) The apparatus of claim 1, further comprising an imager for generating image data in response to radiation that has been filtered by the layer.

10. (Original) The apparatus of claim 9, wherein the imager has a first image element for generating a first image data in response to radiation that has been filtered by the first portion of the radiation filter, and a second image element for generating a second image data in response to radiation that has been filtered by the second portion of the radiation filter.

11. (Original) The apparatus of claim 9, further comprising a gantry, wherein the structure, the imager, and the radiation filter are secured to the gantry.

12. (Canceled)

13. (Currently Amended) The apparatus of claim 1, wherein either or both of the first and the second x-ray filtering materials are selected from the group consisting of aluminum, copper, and molybdenum.

14.-42. (Canceled)

43. (New) An apparatus for use in a radiation procedure, comprising:
a structure having a cavity;
a disk located within the cavity, the disk having a first target material and a second target material.

44. (New) The apparatus of claim 43, wherein the first target material forms a ring configuration.

45. (New) The apparatus of claim 43, wherein the first target material and the second target material are positioned concentrically relative to each other.

46. (New) The apparatus of claim 43, wherein the first target material and the second target material are positioned relative to each other in a side-by-side configuration.

47. (New) The apparatus of claim 43, further comprising an electron gun for sending electrons towards the first or the second target material.

48. (New) The apparatus of claim 47, further comprising an electron deflector for changing a path of the electrons.

49. (New) The apparatus of claim 48, wherein the electron deflector comprises an electromagnetic field generator.

50. (New) The apparatus of claim 48, wherein the electron deflector comprises a magnetic field generator.
51. (New) The apparatus of claim 48, wherein the electron deflector physically deflects the electrons.
52. (New) The apparatus of claim 43, further comprising a gantry to which the structure is secured.
53. (New) The apparatus of claim 43, wherein the structure is a part of a MRI machine.
54. (New) The apparatus of claim 43, wherein the structure is a part of a PET machine.
55. (New) The apparatus of claim 43, further comprising a voltage generator.
56. (New) The apparatus of claim 55, further comprising a switching element coupled to the voltage generator, the switching element configured to modulate the voltage generated by the voltage generator.
57. (New) An apparatus for use in a radiation procedure, comprising:
a first target material;
a second target material; and
an accelerator for accelerating particles towards the first target material and the second target material to generate x-rays at a first energy level and a second energy level, respectively.
58. (New) The apparatus of claim 57, wherein either or both of the target materials includes a rare earth element, a platinum group metal, or combination thereof.
59. (New) The apparatus of claim 57, further comprising an electromagnetic field generator, the electromagnetic field configured to generate an electromagnetic field that deflects the

accelerating particles such that the particles impinge onto one of the first and the second target materials.

60. (New) The apparatus of claim 57, wherein the first and the second target materials are secured to a disk.

61. (New) The apparatus of claim 60, further comprising a motor secured to the disk, the motor configured to rotate the disk such that the electrons impinge onto one of the first and the second target materials.

62. (New) The apparatus of claim 57, wherein the first and the second target materials are positioned concentrically relative to each other.

63. (New) The apparatus of claim 57, wherein the first and the second target materials are positioned relative to each other in a side-by-side configuration.

64. (New) The apparatus of claim 57, wherein the particles comprises electrons, and the apparatus further comprises an electron deflector for changing a path of the electrons.

65. (New) The apparatus of claim 64, wherein the electron deflector comprises an electromagnetic field generator.

66. (New) The apparatus of claim 64, wherein the electron deflector comprises a magnetic field generator.

67. (New) The apparatus of claim 64, wherein the electron deflector physically deflects the electrons.

68. (New) The apparatus of claim 57, further comprising a gantry to which the accelerator is secured.

69. (New) The apparatus of claim 57, further comprising a voltage generator.
70. (New) The apparatus of claim 69, further comprising a switching element coupled to the voltage generator, the switching element configured to modulate the voltage generated by the voltage generator.